

IN THE CLAIMS

1. (Previously Amended) A magnetic head comprising:

a magnetic tunnel effect type magnetic head having a magnetic tunnel junction element sandwiched with upper and lower conductive gap layers between upper and lower magnetic shielding layers, wherein the conductive gap layer is formed from at least one nonmagnetic metal layer containing a metal element selected from Ta, Ti, Cr, W, Mo, V, Nb and Zr; and

an inductive type thin-film head having a lower core layer formed of the same material as the upper magnetic shielding layer and located on the upper conductive gap layer.

2. (Original) The magnetic tunnel effect type magnetic head according to claim 1, wherein the conductive gap layer is formed from at least two nonmagnetic metal layers including a metal layer containing a metal element selected from Ta, Ti, Cr, W, Mo, V, Nb and Zr and a metal layer containing a metal element selected from Al, Pt, Cu and Au.

3. (Withdrawn)

4. (Previously Amended) A recorder/player which records and/or plays back a signal to and/or from a magnetic recording medium comprising:

a magnetic tunnel effect type magnetic head having a magnetic tunnel junction element sandwiched with conductive gap layers between a pair of magnetic shielding layers, wherein the conductive gap layer is formed from at least one nonmagnetic metal layer containing a metal element selected from Ta, Ti, Cr, W, Mo, V, Nb and Zr; and

an inductive type thin-film head having a lower core layer formed of the same material as one of the shielding layers.

5. (Original) The recorder/player according to claim 4, wherein the conductive gap layer

is formed from at least two nonmagnetic metal layers including a metal layer containing a metal element selected from Ta, Ti, Cr, W, Mo, V, Nb and Zr and a metal layer containing a metal element selected from Al, Pt, Cu and Au.

6. (Withdrawn)

7. (New) A magnetic head comprising:

a magnetic tunnel effect type magnetic head having a magnetic tunnel junction element sandwiched with upper and lower conductive gap layers between upper and lower magnetic shielding layers,

wherein at least one of the conductive gap layers is formed from at least one nonmagnetic metal layer containing a metal element selected from Ta, Ti, Cr, W, Mo, V, Nb and Zr, wherein the magnetic tunnel junction element includes a free layer on a fixed layer, and wherein a width of the free layer is equal to or less than a width of the fixed layer.

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